The opinion in support of the decision being entered today was <u>not</u> written for publication and is <u>not</u> binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE
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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES
_____

<u>Ex parte</u> SCOTT H. DANFORTH
_____

Appeal No. 1999-1842
Application No. 08/042,930
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ON BRIEF
_____

Before KRASS, JERRY SMITH and LALL, <u>Administrative Patent Judges</u>.

KRASS, <u>Administrative Patent Judge</u>.

<u>DECISION ON APPEAL</u>

This is a decision on appeal from the final rejection of claims 1-21, all of the pending claims.

The invention is directed to the specification of a metaclass for an object-oriented class object while insuring that the metaclass will fully support class instances

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which are developed by subclassing from a parent class. A metaclass, as defined in the

instant specification, is a class object which is itself an instance of another class.

Representative independent claim 1 is reproduced as follows:

1.   A method for deriving a metaclass for a new class defined by subclassing at least one parent class, comprising the steps of:

executing a set of instructions to construct the new class stored in a memory;

deriving a new class metaclass for the new class given both a parent class metaclass for the at least one parent class and a second metaclass; and,

creating the new class in the memory according to the new class metaclass.

The examiner relies on the following reference:

Orr et al. (Orr), "OMOS-An Objected Server for Program Execution", IEEE 1992.

Claims 1-21 stand rejected under 35 U.S.C. § 102(b) as anticipated by Orr.

Reference is made to the brief and answer for the respective positions of

appellant and the examiner.

OPINION

We reverse.

The burden, in the first instance, of establishing a prima facie case of anticipation is

on the examiner.

The examiner cites Orr, applies its teachings to the claim limitations and, concludes that the "meta-objects" disclosed by Orr are equivalent to the claimed "metaclass."

Appellant strenuously contends that "the meta-objects of Orr are NOT equivalent to the metaclasses of Applicant's invention" [brief-page 7]. Appellant cites definitions adopted by the Common Lisp Object System (CLOS) as: "A meta-object is described as including a class "standard-object" and instances of the classes "standard-method", "standard-generic-function", and "method-combination"." A "metaclass is described as including the classes "standard-class", "built-in-class", and "structure-class"." [Brief-page 6]. While appellant does not describe these various classes, appellant concludes that the skilled artisan "can appreciate can [sic] that meta-objects and metaclasses are genuinely and clearly different."

As support for the equivalency of a metaclass and meta-object, the examiner cites a 1991 publication by Yokote et al., entitled, "The Muse Object Architecture: A New Operating System Structuring Concept." More particularly, the examiner cites section 4.1 and page 15 thereof for the proposition that at the time of the invention the term meta-object was understood to include metaclasses. The examiner then submits that "a meta-class is a meta-object" [answer-page 5].

Our review of the Yokote reference reveals a mention of a "*Metaclass* meta-object" and a drawing showing a circle with various object therein, the circle labeled "meta-space (Metaclass)," on page 15. However, we find nothing therein persuading us that a metaclass is a meta-object, as contended by the examiner.

Appellant defines a metaclass as a class object which is itself an instance of another class and the examiner has made no convincing showing that such a definition would fit the meta-objects disclosed by Orr. Further, appellant argues that Orr does not disclose deriving a new metaclass given a parent class and a second metaclass, as claimed, and the examiner has presented no convincing showing to persuade us otherwise.

Many of the terms used in this esoteric art of object-oriented systems are similar and confusing and the skill level of artisans involved therein is quite high. Appellant contends that two terms are not equivalent. The examiner contends otherwise. While we cannot definitively state that the examiner is wrong, we take a balanced approach to deciding this case. Because of the extremely esoteric art involved here, the burden may be a bit more onerous on the examiner to explain, in a clear and rational manner, how the art is being applied to the claimed subject matter but the initial burden of establishing a prima facie case still lies with the examiner. On balance, we come down

on the side of appellant since, in our view, the examiner has not convincingly shown us that

a metaclass is unequivocally the same as a meta-object in the face of appellant's

strenuous rebuttal that the terms are not equivalent.

The examiner's decision rejecting claims 1-21 under 35 U.S.C. § 102(b) is

reversed.

<u>REVERSED</u>

ERROL A. KRASS	)
Administrative Patent Judge	)
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	)
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	) BOARD OF PATENT
JERRY SMITH	) APPEALS
Administrative Patent Judge	) AND
	) INTERFERENCES
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	)
PARSHOTAM S. LALL	)
Administrative Patent Judge	)

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